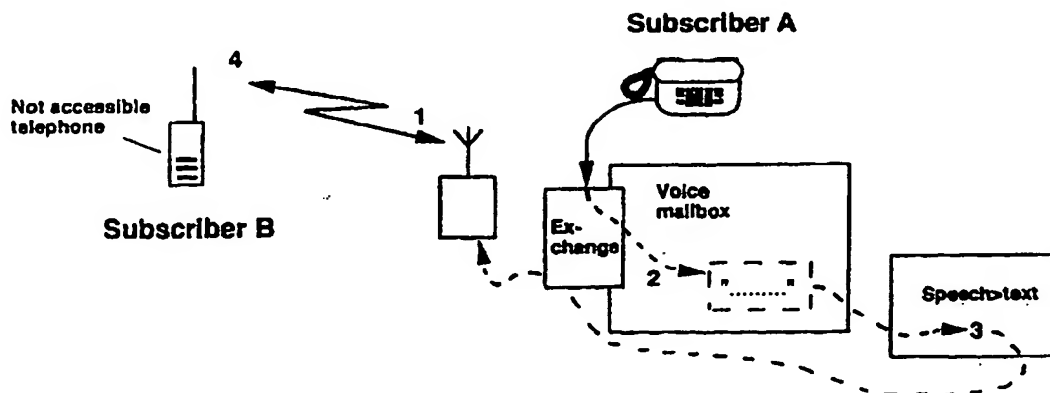




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(54) Title: VOICE MAILBOX FOR TEXT MESSAGES



(57) Abstract

The invention relates to a device and a method at a telecommunication system which can convert one in the fixed network stored voice mailbox message to one in the mobile network transmissionable text message. The invention is characterized in that in the telecommunication system arranged voice mailbox a speech/text-conversion is made, and that the first number of characters in the message, for instance 160, are transmitted to the receiving telephone or the pager. The receiver then can read his/her message on the display unit of the receiving unit.

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TITLE OF THE INVENTION: VOICE MAILBOX FOR TEXT MESSAGES

TECHNICAL FIELD

The present invention relates to a device and a
5 method at a telecommunication system, which system includes
at least one fixed network, one mobile network, and at
least one voice mailbox.

PRIOR ART

10 When a mobile telephone user is in a situation where
he/she cannot talk on the telephone but yet has to receive
a message, then the call can be connected to one in the
telecommunication system arranged voice mailbox where a
voice message can be delivered by the calling party. Said
15 voice mailbox after that transmits a text message to the
telecommunication terminal or the pager about that there is
a message to be collected. This, however, will not help the
person who due to his/her situation cannot call the voice
mailbox and listen to the message. The aim with the present
20 invention consequently is to solve this problem.

SUMMARY OF THE INVENTION

The above said aim is achieved by means of a device
and a method which attends to conversion of the in a voice
25 mailbox stored speech message to a text message
corresponding to said speech message, at which said device
further attends to transmission of said text message to a
portable terminal.

One advantage with this is of course that a user of a
30 portable terminal immediately can read his/her message and
form an opinion of the importance of this without needing
to call his/her voice mailbox. The user consequently saves
time.

Also when there is a telephone answering machine in
35 the PSTN-network/exchange (for instance "Telesvar") and the
user has no possibility to call and check his/her telephone

answering machine, this service can solve the problem by transmitting the message to either a pager, GSM telephone or the like.

More characteristics of the invention are given in the subclaims.

SHORT DESCRIPTION OF THE DRAWING

In the following a detailed description is given of an embodiment of the invention with reference to the only drawing.

Figure 1 shows schematically the telecommunication system according to the present invention.

1. The B-subscriber not accessible.
2. The A-subscriber speaks a voice message.
3. Voice-to-text conversion.
4. The X number of the first characters in the message are transmitted to the B-subscriber (160 characters in SMS GSM).

DETAILED DESCRIPTION OF AN EMBODIMENT OF THE INVENTION

A subscriber A tries to call a mobile subscriber B. The subscriber B, however, cannot be accessed, so the subscriber A will speak a message for subscriber B's voice mailbox 2. The speech message in the voice mailbox 2 is transmitted to a speech/text converter 3 which converts said speech message to a corresponding text message and transmits said text message to said mobile terminal via a mobile station 1. The speech/text-conversion is made according to technology applied for, for a patent by Telia, as will be seen in the Swedish patent applications SE-9401613-6 (US08/43062) and SE-9502202-6 (EP-96850108.0). The text message is shown on the display of the mobile terminal 4. The subscriber B consequently directly can read the message without the need to call his/her voice mailbox. The mobile terminal can consist of just any mobile telephone or pager.

In a special embodiment the first x number (amount) of the characters of the speech message (for instance the first 160 characters in the GSM/text-case) are transmitted to the mobile terminal.

5 The invention is intended to be used within all telephony, PSTN as well as cellular systems, where voice mailboxes are used. Within PSTN Telia's "Telesvar" (station-located personal telephone answering facility) can be connected to this service. Also Telia's "mobile
10 answering service" for GSM/NMT can be connected to this service according to the present invention.

 What has been said above is only to be regarded as an advantageous embodiment of the invention, and the scope of protection of the invention is defined only in what is
15 indicated in the following patent claims.

PATENT CLAIMS

1. Device at a telecommunication system, which system includes at least one fixed network, preferably PSTN, at least one mobile network, and at least one voice mailbox (2), c h a r a c t e r i z e d in that it attends to conversion of one in a voice mailbox (2) stored speech message to a text message corresponding to said speech message, after which said device attends to transmission of said text message to a terminal (4).

2. Device according to patent claim 1, c h a r a c t e r i z e d in that said text message is shown on the screen of said terminal (4).

3. Device according to any of the patent claims 1 or 2, c h a r a c t e r i z e d in that said terminal (4) is just any mobile telephone, just any pager, or just any portable terminal.

4. Device according to any of the previous patent claims, c h a r a c t e r i z e d in that it attends to speech/text-conversion of a first in advance decided number of characters, for instance the first 160 characters, and transmits these characters to said terminal (4).

5. Method at a telecommunication system, which system includes at least one fixed network, preferably PSTN, at least one mobile network, and at least one voice mailbox (2), c h a r a c t e r i z e d in that it includes the steps that:

(a) just any one subscriber (A) tries to call just any one subscriber (B);

(b) subscriber (B) is not accessible, at which subscriber (A) speaks a message for subscriber (B)'s voice mailbox (2);

(c) the speech message in the voice mailbox (2) is transmittted to a speech/text-converter (3) which converts said speech message to a corresponding text message;

(d) the speech/text-converter (3) transmits said text message to said subscriber (B)'s terminal (4) via a station (1);

(e) said text message is shown to the subscriber (B)
5 on the display of said terminal (4).

6. Method according to patent claim 5,
c h a r a c t e r i z e d in that said terminal consist of
just any mobile telephone, just any pager, or just any
mobile terminal.

10 7. Method according to any of the patent claims 5 or
6, c h a r a c t e r i z e d in that said speech/text-
converter (3) only transmits a first predetermined number
of characters of the speech message to said terminal (4).

8. Method according to patent claim 7,
15 c h a r a c t e r i z e d in that in the GSM-text case the
first 160 characters of the speech message are transmitted.

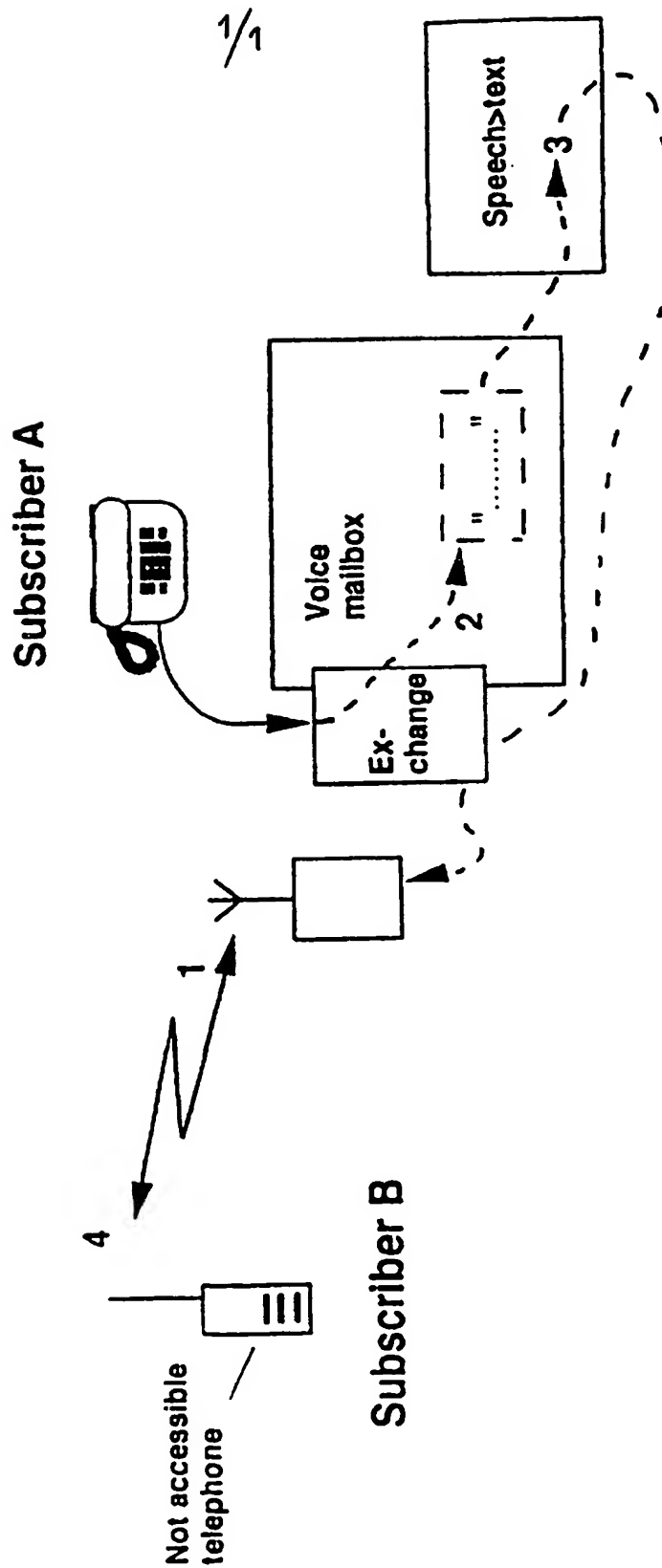


Figure 1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 97/01200

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H04M 3/50, H04Q 7/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: H04M, H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 9614701 A2 (APOGEE 2000, INC.), 17 May 1996 (17.05.96), abstract --	1,2,4,5,7,8
X	EP 0586954 A2 (ROLM COMPANY), 16 March 1994 (16.03.94), column 4, line 36 - column 6, line 17, abstract -----	1,2,4,5,7,8

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

18 December 1997

Date of mailing of the international search report

08 -01- 1998

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INTERNATIONAL SEARCH REPORT

International application No.
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Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 3, 6
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

The claims mention "just any mobile telephone..." without giving any characteristical technical features.

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark . . . Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT
Information on patent family members

02/12/97

International application No.
PCT/SE 97/01200

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9614701 A2	17/05/96	AU 4362996 A EP 0796534 A US 5687220 A AU 6249596 A US 5684862 A WO 9637990 A	31/05/96 24/09/97 11/11/97 11/12/96 04/11/97 28/11/96
EP 0586954 A2	16/03/94	NONE	

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